

AMENDMENT TO THE CLAIMS

1. (Currently amended) A method of manufacturing a semiconductor device comprising the steps of:

forming an interconnection on a semiconductor substrate having a semiconductor element formed thereon;

forming a passivation film on the semiconductor substrate including the interconnection;

forming a polyimide film, which serves as a buffer coating film, on the passivation film;

patterning the polyimide film;

etching the passivation film, while the patterned polyimide film is used as a mask, under conditions which form a hardened polyimide layer on the surface of the polyimide film;

ashing to remove ~~0.1~~ 0.1 μm to several micrometers of the polyimide film, thereby removing the hardened layer formed on the surface of the polyimide film as a result of said step of etching; and

curing the semiconductor substrate after ashing process so as to transform the polyimide film into imide.

2. (Original) The method of manufacturing a semiconductor device according to claim 1, wherein the polyimide film is formed by means of applying varnish

which is formed by dissolving into an organic solvent polyamic acid serving as a precursor of polyimide.

3. (Original) The method of manufacturing a semiconductor device according to claim 1, wherein the polyimide film is a photosensitive polyimide film.

4. (Original) The method of manufacturing a semiconductor device according to claim 1, wherein in said step of removing, ashing process is effected through use of oxygen plasma.

5. (Cancelled)

6. (Previously amended) The method of manufacturing a semiconductor device according to claim 1, wherein said step of curing is effected at 300°C to 450°C for 0.1 to several hours.